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APPLICATION FOR LETTERS PATENT

for

**APPARATUS FOR PREVENTING HIGH SPEED VEHICLE
PURSUITS**

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APPARATUS FOR PREVENTING HIGH SPEED VEHICLE PURSUITS

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FIELD OF THE INVENTION

5 The present invention relates generally to apparatuses having the purpose of disabling the progress of a vehicle, and in particular to apparatuses for preventing high speed vehicle pursuits.

10 BACKGROUND OF INVENTION

In the area of law enforcement, police and other law enforcement officers are commonly required to stop and question motorists. Frequently, these traffic stops occur on the side of the road. During a traffic stop, there is a possibility that a motorist may 15 attempt to flee causing the officer to pursue the fleeing vehicle at high speeds. Such incidents cause injuries to law enforcement officers and damage to law enforcement vehicles due to collisions caused by high speed chases. Additionally, the fleeing vehicle may harm individuals and property not involved in the traffic stop. Law enforcement agencies may be required to bear the costs of workers' compensation claims, personal 20 injury and other lawsuits against the law enforcement agency, and insurance claims resulting from vehicle damage. Therefore, a means for deterring a detained motorist from fleeing the scene is desired. One such means possesses a mechanism for deflating vehicle tires of a fleeing motorist in order to prevent the motorist from achieving high speeds and prevent injury and or death to innocent bystanders.

25 The utility patents U.S. Pat. No. 5,482,397 and U.S. Pat. No. 5,704,445 issued to Soleau and Jones respectively, disclose a tire deflator including a spike secured to a support mechanism such that upon contact with a tire of a moving vehicle the spike

penetrates the tire causing rapid air depletion. However, Soleau and Jones lack a means for positioning the apparatus on either side of the tire. Additionally, Soleau and Jones require the user to position the chocks underneath the vehicle wheel by hand, causing law enforcement officers to be vulnerable to injury if the vehicle moves. Therefore, an
5 apparatus is needed that is easily positioned on a vehicle tire without exposing a user's body to possible harm.

The Soleau and Jones patents also fail to include a mechanism for protecting users from the disclosed spikes during placement and while the apparatuses are not in use. Therefore, an apparatus is needed that protects individuals from injury caused by
10 inadvertent contact with deflating spikes.

The utility patent U.S. Pat. No. 5,689,981 issued to DeLuca et al. discloses an anti-theft vehicle wheel lock wherein a chock is positioned against a vehicle tire coupled with a bar on the opposing side securing the chock in place. Furthermore, a lock prevents movement of the chock and opposing bar, and a handle extends upward facilitating
15 placement of the device. However, DeLuca et al. only is effective when locked into place, which takes time, and has no effect to prevent a high speed chase such as deflating vehicle tires. Therefore, an apparatus is needed that is easily placed and may be used in an unlocked position in order to prevent a vehicle from achieving high speeds.

For these reasons, in order to prevent high-speed pursuits, a deflating apparatus is
20 needed that is easily placed, without exposing a user's body to harm.

SUMMARY OF THE INVENTION

The apparatus of the present invention, an apparatus for preventing high speed vehicle pursuits, includes spikes, or other means for deflating a vehicle tire known in the art, disposed on opposing blocks or chocks, further secured to adjustable supports. A vertical user engageable member is secured to the support facilitating placement around a vehicle tire.

The apparatus has two positions, stored and deployed. While the apparatus is in the stored position, the supports are folded upward toward the vertical user engageable member. The spikes are pointed downwards or horizontally towards the opposing block causing the blocks to cover the spikes and protect individuals from unintentional contact and resulting injury. In order to deploy the device, the supports are propelled downward by a spring force, or other deploying mechanism known in the art, when activated by a user.

Once deployed, the apparatus is locked into position. A user places the apparatus around a vehicle tire using the vertical user engageable member allowing placement without exposing a user's body to harm or the need for locking the apparatus around the tire. The blocks are positioned along side the outside front and back surfaces of the vehicle tire. The spikes and opposing blocks are positioned so to compress against the lower front and lower back surfaces of a vehicle tire. Foam or cushioning may be placed over the spikes in order to further protect users from exposed spikes. Due to the durability of a vehicle tire, the spikes will not penetrate causing deflation unless a strong force is applied on the spikes, such as vehicle propelled movement.

If the vehicle attempts to move, the spikes, or other deflating means, puncture the tire, thus releasing the air in the tire well before the vehicle gains any significant forward or reverse motion while at the same time not rendering the vehicle out-of-control from the operator. Thus, escape at high speeds is prevented. The spikes are capable of
5 piercing any sized vehicle tire; regardless of the speed or direction the vehicle attempts to flee.

These and other features, aspects and advantages of the present invention will become better understood with reference to the following description, claims, and accompanying drawings. Therefore, the form of the invention, as set out above, should
10 be considered illustrative and not as limiting the scope of the following claims.

BRIEF DESCRIPTION OF DRAWINGS

15 FIG. 1 is a front prospective view of an embodiment of the apparatus for preventing high speed vehicle pursuits in deployed position;

FIG. 2 is a side view of an embodiment of the apparatus for preventing high speed vehicle pursuits placed around a vehicle tire in deployed position;

20 FIG. 3 is a rear view of an embodiment of the apparatus for preventing high speed vehicle pursuits placed around a vehicle tire in deployed position;

FIG. 4 is a top view of an embodiment of the apparatus for preventing high speed vehicle pursuits; and

FIG. 5 is a front view of an embodiment of the apparatus for preventing high speed vehicle pursuits in stored position.

DESCRIPTION OF THE INVENTION

5 The preferred embodiment of the present invention represents an apparatus for preventing high speed vehicle pursuits as shown in **FIGS. 1-5**. The apparatus **1** of the present invention includes spikes **2**, or other means for deflating a vehicle tire known in the art, disposed on blocks **3, 4**. The blocks **3, 4** are secured to supports **5, 6**. A user places the apparatus **1** using a vertical user engageable member **7** allowing placement
10 without exposing a user's body to harm. The spikes **2** and opposing blocks **3, 4** are positioned so to compress against the lower front and lower back surfaces of a vehicle tire. The spikes **2** may be hollow spikes, blades or other deflating means, and foam or cushioning may be placed over the spikes **2**. The apparatus **1** is comprised of steel or other high strength material with similar properties.

15 The apparatus has two positions, stored as shown in **FIG. 5** and deployed as shown in **FIGS. 1-4**. While the apparatus **1** is in stored position, the supports **5, 6** are folded upward toward the vertical user engageable member **7** and fastened as shown in **FIG. 5**. The spikes **2** are pointed downwards or horizontally towards the opposing block **3, 4** causing the blocks **3, 4** to cover the spikes **2** and protect unintentional contact and
20 resulting injury. In order to deploy the apparatus **1**, the supports **5, 6** are propelled downward, due to a spring force or other deploying mechanism known in the art, when activated by a user.

Once deployed, the apparatus **1** is locked in deployed position as shown in **FIGS. 1-4**. A user places the apparatus **1** around a vehicle tire using the vertical user
25 engageable member **7** allowing placement without exposing any part of the body in front

of or behind a vehicle tire, thus, susceptible to crushing were the vehicle to move. The blocks **3**, **4** are positioned along side the outside front and back surfaces of the vehicle tire. The spikes **2** and opposing blocks **3**, **4** are positioned so to compress against the lower front and lower back surfaces of a vehicle tire.

5 While the apparatus **1** is in place, if the vehicle begins to move, the spikes **2**, or other deflating means, puncture the tire, thus releasing the air in the tire well before the vehicle gains any significant forward or reverse motion while at the same time not rendering the vehicle out-of-control. The apparatus can be modified such that the spikes **2** are capable of piercing any sized vehicle tire; regardless of the speed or direction the
10 vehicle attempts to flee.